

# Educational Adventures in the Dunes

2008-2009

*A Teachers' Planning Guide to  
Environmental Education Programs  
in the Indiana Dunes*



Partner of  
Indiana Dunes National Lakeshore

# Indiana Dunes Environmental Education

Indiana Dunes has a long, fascinating history of attracting scientists and students alike to study and explore globally rare ecosystems. The process of unlocking the mysteries of the Indiana dunes began in the late 1800s with Dr. Henry Cowles and continues today. In the spirit of further utilizing the Indiana dunes as an educational tool, organizations throughout the area offer a wide variety of environmental education programs. This Teachers' Planning Guide, "Educational Adventures in the Dunes," provides a comprehensive list of the many programs available. It is designed to assist educators and youth group leaders in understanding and using the resources available to them.

Each participating organization has its own section that explains its unique facilities and programs. Each program listed has:

- *A brief description*
- *Information about program availability*
- *Appropriate age range*
- *Minimum and maximum group sizes*
- *Program cost (if applicable)*
- *The location and length of the program*

Various teachers' workshops are listed in the first pages to showcase professional development opportunities available from the partner organizations. The uses of the Indiana dunes as a valuable teaching tool are abundant. This guide will enable educators to choose the programs that are most appropriate for them and their particular group of learners and plan exciting excursions into a whole new world of educational opportunities.



**NATIONAL  
GEOGRAPHIC**

**Join Us May 15-16**

**for the 2009 BioBlitz  
at Indiana Dunes**

**24 HOURS OF SCIENCE, LEARNING AND  
FESTIVITIES IN YOUR NATIONAL AND STATE PARKS**



# 2009 BioBlitz

## at Indiana Dunes

### May 15-16

24 HOURS OF SCIENCE, LEARNING AND  
FESTIVITIES IN YOUR NATIONAL AND STATE PARKS



Students and teachers are invited to play a vital role in this year's BioBlitz at Indiana Dunes National Lakeshore. The 2009 National Park Service/National Geographic BioBlitz will take place May 15 and 16, bringing together teams of scientists, volunteers and community members to find and identify as many local plant and animal species as possible in the Indiana Dunes.

Events will be designed before and during the BioBlitz to engage students and educators at all levels. A teacher workshop will be held November 7-8 at the Dunes Learning Center to train educators in monitoring and research methods used during the BioBlitz. Teachers participating in the workshop will also be engaged in developing and leading events during the actual BioBlitz event. For more information see below.

High schools and other organized groups of teens or university students are encouraged to participate in BioBlitz 101 programs throughout the year with National Park Service staff to learn the methods and techniques necessary to participate and volunteer with scientists and monitoring teams that will be lead

throughout the national lakeshore and state park during that intense 24-hour study period. For more information on how to register for this program, see BioBlitz 101 workshop information below or contact the National Lakeshore's scheduling office at 219-395-1857. Check out the National Geographic website [www.nationalgeographic.org](http://www.nationalgeographic.org) for more information.

## Education Resource Center

219-395-1857

[www.nps.gov/indu/forteachers/](http://www.nps.gov/indu/forteachers/)

The Education Resource Center features supplemental curriculum materials that can be checked out by educators for a two-week time period. Please phone ahead for an appointment.

### Video Loan Collection

Educational videos from the Richardson Wildlife Sanctuary Video Loan Collection are available on free loan to educators. These videos and CDs focus on science and natural resources and provide excellent introductory and followup materials for field trips to the dunes, as well as supplements to in-school curriculum. Call or e-mail for a complete catalogue.

### Traveling Trunks

Traveling trunks on the following topics are available for loan for a period of three weeks:

- ◆ Trees and Forests
- ◆ Birds
- ◆ Mammals
- ◆ Zebra Mussels
- ◆ Great Lakes
- ◆ Acid Rain
- ◆ Vegetation Monitoring
- ◆ Climate Change
- ◆ Great Lakes Shipping
- ◆ Northwest Indiana's Indian History

Trunks must be picked up in person and cannot be shipped. Please call for a description of trunk contents or to reserve a trunk.



## New Workshop

### Bio Blitz 101

**Goal:** Prepare students to become citizen scientists and participate in the first BioBlitz ever held at Indiana Dunes National Lakeshore.

**Age group:** 6th-12th grade

**Max. group size:** 60

**Location & length:** Douglas Center or Calumet Dune Interpretive Center, 2 hrs.



Students will discover the importance of biological monitoring and performing inventories of species as they engage in scientific techniques used by researchers. By participating in this program during the school year, groups will be able to participate in the first Dunes BioBlitz to be held May 15 and 16 when citizens and scientists will be cataloging EVERY species found within our national park in a 24 hour period. Help the park make history this year!

# Indiana Dunes National Lakeshore

The Indiana Dunes National Lakeshore was established in 1966 “to preserve for the educational, inspirational, and recreational use of the public certain portions of the Indiana dunes.” Today, the park is comprised of over 15,000 acres of dunes, oak savannas, swamps, bogs, marshes, prairies, rivers, and wetlands. As one of 390 units of the National Park System, Indiana Dunes National Lakeshore offers curriculum based programs for all ages. All program assist teachers in meeting state curriculum standards and a list of those standards are provided in each program’s teacher packet.

Thousands of students participate in education programs at the National Lakeshore every year. The park offers programs at various locations throughout Lake, Porter, and LaPorte Counties, such as the Paul H. Douglas Center for Environmental Education, the Dorothy Buell Memorial Visitor Center, the historic areas of Bailly Homestead and Chellberg Farm, and the natural areas and trails throughout the park. It is a wonderful place to bring students for ranger-led programs or for self-guided programs. Teacher activity guides are available upon request for West Beach and Miller Woods or can be downloaded from the National Lakeshore’s web site.

## Discover

*Goal: Explore nature’s diversity using the senses.*

Discover the wonders of nature along a wooded trail by using your senses.

**Program availability:** Year-round except during Autumn Harvest and Maple Sugar Time

**Age group:** Preschool-3rd grade

**Max. group size:** 90

**Location & Length:** Douglas Center or Calumet Dune Interpretive Center, 1 hr.

## The Chellbergs had a Farm

*Goal: Experience and learn about Indiana’s early farming traditions.*

Step back in time and discover farm life in the early 1900s. Observe farm animals. Play farm games and visit an old time farm house.

**Program availability:** Year-round

**Age group:** Preschool-3rd grade

**Max. group size:** 90

**Location & length:** Chellberg Farm, 1 hr.

## Talk With the Animals

*Goal: Become familiar with the wonders of animals of the dunes through the year.*

Puppet characters tell a story of life in the dunes. If weather permits, students are invited to hike the trail after the show.

**Program availability:** Year-round

**Age group:** Preschool-1st grade

**Max. group size:** 70

**Location & length:** Douglas Center or Calumet Dune Interpretive Center, 1 hr.

## Autumn Harvest

*Goal: Experience old-time life on a farm in the fall.*

Sample harvest time at a turn-of-the-century farm. Gather sorghum, press cider, help with chores or play farm games. Enjoy the sights and smells of an old-time farmhouse and barn.

**Program availability:** September 25-October 10

**Age group:** All grades

**Max. group size:** 60

**Location & length:** Chellberg Farm, 1.75 hrs.

Begin your visit to the Indiana Dunes at the Dorothy Buell Memorial Visitor Center!

Visit the new Dorothy Buell Memorial Visitor Center located on Hwy. 49, north of the interstate, with your students when you visit Indiana Dunes National Lakeshore. Students can watch two short videos on the park, engage in a hands-on Junior Ranger Activity Room, and learn about upcoming events at the new visitor center, which is jointly operated with Porter County Convention, Recreation and Visitors Commission, and the National Park Service.



Indiana Dunes National Lakeshore

[www.nps.gov/indu/forteachers/](http://www.nps.gov/indu/forteachers/)

The National Lakeshore’s web site has a wealth of information for teachers and students. Students can play interactive games such as the Web Ranger Challenge.







## Maple Sugar Time

*Goal: Learn and experience the making of this purely American product.*

Learn about “horse-power,” examine maple trees, and see the Native American, pioneer, and sugar shack methods of making maple sugar and syrup. Tour the Chellbergs’ 19th-century farmhouse and visit the animals in the barn.

**Program availability:** February 26-March 13

**Age group:** K-5th grade

**Max. group size:** 60

**Location & length:** Chellberg Farm, 1.75 hrs.

## Fall Fanfare

*Goal: Experience and learn about the changing of the seasons.*

Cool weather and shorter days bring beautiful changes. Discover the flurry of activity as plants and animals prepare for winter.

**Program availability:** October and November

**Age group:** 1st-6th grade

**Max. group size:** 90

**Location & length:** Kemil Beach or Douglas Center, 2 hrs.

## Winter Exploration

*Goal: Experience and learn about the beauty and ecology of winter.*

Explore the beauty of the winter woods during a nature hike after viewing an indoor slide show focusing on animal adaptations. Learn how plants and animals adapt to winter. Snowshoes are provided. If there is insufficient snow, a hike will be led.

**Program availability:** January 6-February 13

**Age group:** 3rd-6th grades

**Max. group size:** 36

**Location & length:** Calumet Dune Interpretive Center, 1.5 hrs.

## Indians and Fur Traders

*Goal: Experience local history focusing on American Indian lifestyles and the fur trade.*

Journey back in time to learn about the lifestyles of the American Indians, fur traders, and voyageurs during this period of change in Northwest Indiana.

**Program availability:** Year-round

**Age group:** 3rd-8th grade

**Max. group size:** 90

**Location & length:** Bailly Homestead, 2 hrs.

## A Grain of Truth

*Goal: Explore the dunes and gain a personal experience of how they came to be.*

Observe how winds and powerful waves work to create and erode moving sand dunes. Hike the foredunes and beach to learn about the processes of dune building, glaciation, and erosion.

**Program availability:** Spring/summer/fall

**Age group:** 4th-8th grade

**Max. group size:** 90

**Location & length:** West Beach or Mount Baldy, 1.5 hrs.

## Lake Michigan Alive

*Goal: Appreciate the diversity of life within this region’s most important natural resource and learn about some of the issues affecting Lake Michigan.*

Dress a student as a fish. Play a food chain game. View preserved sea lamprey and trout. Students are encouraged to help care for the Great Lakes. This program is primarily indoors but does include a 30-minute trip to the lake.

**Program availability:** Year-round

**Age group:** 4th-12th grade

**Max. group size:** 60

**Location & length:** Douglas Center, 1.5 hrs. including beach hike

*No charge for any National Lakeshore program.*



## Water World

*Goal: Experience and explore the diversity of life within a wetland.*

Armed with nets and pans, investigate the rich diversity of pond life and learn the importance of conserving our water resources. For a more in-depth experience, students take the 3-hour hike option to explore Lake Michigan's water resources.

**Program availability:** April-October

**Age group:** 4th-12th grade

**Max. group size:** 48

**Location & length:** Douglas Center, 2 or 3 hrs.

## Habitat Hike

*Goal: Learn about the importance of biodiversity through a hike into the National Lakeshore's many habitats.*

Discover why the Indiana dunes has almost 1,400 species of plants, ranking it 4th highest of all National Park areas! Explore forest, dunes, a swamp, and sand prairie, while studying environmental factors that affect plant survival.

**Program availability:** Year-round except during Autumn Harvest and Maple Sugar Time

**Age group:** 4th-12th grade

**Max. group size:** 90

**Location & length:** Kemil Beach Parking Lot, 2 hrs.

## Reflections on Snow

*Goal: Appreciate and learn about the beauty and ecology of winter.*

Discover the thrill of cross-country skiing. Indoor activities explore tracking, predation, and winter habitats. Ski equipment provided. If snow is insufficient, a hike will be led.

**Program availability:** January 6-February 13

**Age group:** 5th-12th grade

**Max. group size:** 60

**Location & length:** Meet at Calumet Dune Interpretive Center, 2.5 hrs.

## Pinhook Bog

*Goal: Learn about and appreciate this rare, fragile gift of the glaciers.*

Hike into the strange and unique world of the bog. Walk on a floating mat of sphagnum moss and discover insect-eating plants.

**Program availability:** Mid-April through mid-November

**Age group:** 6th-12th grade

**Max. group size:** 30 (depending on staff availability)

**Location & length:** Meet at the Calumet Dune Interpretive Center, 2 hrs.

## Secrets of Succession

*Goal: Experience and appreciate the variety of plant communities found in the dunes.*

Follow the legacy of early dunes scientist Henry Chandler Cowles and hike from the beach over foredunes and through forests. By exploring the environment, discover the forces that shape the dunes and produce this unique succession of plants.

**Program availability:** Spring/Summer/Fall

**Age group:** 6th-12th grade

**Max. group size:** 90

**Location & length:** West Beach, 2 hrs.



### National Lakeshore Rangers Will Visit Your Schools and Groups!

Contact the park's scheduling office to reserve a school visit by a ranger during the following times:

- ◆ September 3-12
- ◆ November, December, January, and February

To reserve a ranger site visit, please arrange for one large group or several small groups throughout the day to ensure at least 75 students can be reached. The site visits are also limited by the distance and weather. Rangers will conduct programs on a variety of subjects and will work with your school to create a site visit that meets your curricula needs.

# Teachers' Planning Guide

Incorporate our Environmental Education Programs into your classroom agenda!

## September 2008

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## NOTES

*Duneland Harvest Festival is September 20 & 21!*

## October 2008

S	M	T	W	T	F	S
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12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## NOTES

*Indiana Dunes State Park Kids Fall Funfest on October 11 & 12*

## November 2008

S	M	T	W	T	F	S
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2	3	4	5	6	7	8
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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## NOTES

*BioBlitz 101 workshop on November 7 & 8  
(See page 5 for details.)*

## December 2008

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## NOTES

*Join us for Duneland Winter Birding Days on December 6 & 7*

## January 2009

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## NOTES

*Remember the Project W.E.T. Educator Workshop on Friday, January 9!  
(See page 3 for details.)*



# Teachers' Planning Guide

Incorporate our Environmental Education Programs into your classroom agenda!

## February 2009

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

## NOTES

*Don't forget Maple Sugar Time (MST), February 26-March 13! (See page 9 for details.)*

## March 2009

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## NOTES

## April 2009

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## NOTES

*Northwest Indiana Earth Day – April 18, 2009, Sunset Hill Farm County Park, 10 a.m.-3 p.m.*

*Green Gary – April 25, Douglas Center*

## May 2009

S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## NOTES

*BioBlitz – May 15-16 (See page 5 for details.)*

## June 2009

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## NOTES

*Field Techniques for Science Education – June xx-xx (See page 4 for details.)*

# Partners

## FRIENDS OF *Indiana Dunes*

**FRIENDS** is a non-profit organization that sponsors a variety of park events and activities to enhance the understanding, appreciation, and enjoyment of the Indiana dunes.



Great Lakes Research  
and Education Center



**The Great Lakes Research and Education Center**, funded through the National Park Service, facilitates research in 10 national parks within the Western Great Lakes Region and brings new knowledge about our natural and cultural resources to the eyes of the public.



**The Dunes Learning Center** serves as an education center and environmental learning laboratory on the site of the National Park Service's Camp Good Fellow.



**Indiana Dunes National Lakeshore** was established in 1966 to "to preserve for the educational, inspirational, and recreational use of the public certain portions of the Indiana dunes."



LAKE COUNTY  
SOLID WASTE  
MANAGEMENT DISTRICT

**Lake County Solid Waste Management District** is a government entity created to develop a plan for the management of solid waste in Lake County, Indiana with an extensive environmental education program.



**Recycling and Waste Reduction District of Porter County** is a state-mandated agency devoted to reducing waste and improving the quality of life for Porter County residents. With this goal in mind, the District offers a variety of environmental education programs.



**Save the Dunes Conservation Fund's** mission is to protect and restore the Indiana dunes and surrounding natural resources through environmental research, legal safeguards, and strategic conservation initiatives.



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